

Several desirable embodiments of the present invention have been described above, but various changes in the constitution of parts, control, and combinations thereof needless to say, may be made within a range that does not exceed the concepts of the present invention.

Brief Description of the Drawings

Figure 1 (A) through 1(D) diagrammatically show the principle of the present invention;

Figure 2 is a block diagram of an input signal cancellation loop according to a first embodiment of the invention;

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Figures 3 (a) through 3(*p*) diagrammatically explain the input signal cancellation method according to the first embodiment;

Figure 4 is a diagram explaining the control range of the first embodiment;

Figures 5 (A) and 5(B) show a flowchart of the automatic control operation of the first embodiment;

Figure 6 is a block diagram of an input signal cancellation loop according to a second embodiment of the present invention;

Figure 7 is a block diagram of an input signal cancellation loop according to a third embodiment of the present invention;

Figures 8 (A) and 8(B) show a diagram explaining the bi-phase operation of the third embodiment;

Figure 9 is a block diagram of an input signal cancellation loop according to a fourth embodiment of the present invention;

Figure 10 is a diagram explaining the bi-phase operation of the fourth embodiment;

Figure 11 is a block diagram showing a feed-forward amplifier of the invention;

Figure 12 is a diagram explaining the operation of a feed-forward amplifier of Fig. 11;

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Figures 13 (A) through 13 (*Z*) show a diagram (1) showing examples of circuits necessary to constitute each functional block;

Figures 14 (A) – 14(D) show a diagram (2) showing examples of circuits necessary